

CLAIMS

The current claim set of the application is presented below. Indications as to the status of the claims ("original", "currently amended", "cancelled", "new", etc.) appear in parentheses after the claim number. Deletions are identified in strikethrough with double brackets (e.g. ~~[[deletion]]~~) and new text is identified in underlining (e.g. new language).

27. (Currently Amended) A method of delivering a denervating agent to a prostate gland, the method comprising:

inserting an imaging apparatus into a rectum of a patient, wherein the imaging apparatus is a shaft with a longitudinal axis that includes a hole at the distal tip, the shaft rotatably attached to a handle;

generating one or more images of the prostate gland via the imaging apparatus;

positioning a distal end of the shaft in proximity to a first location of the prostate gland based on the one or more images;

maneuvering a spring-loaded needle through the shaft;

actuating a spring mechanism to cause a distal end of the needle to be inserted into the prostate gland;

delivering the denervating agent to the prostate gland via a lumen of the needle;

removing the distal end of the needle from the prostate gland at the first location;

rotating and moving the shaft with respect to the prostate gland to position the distal end of the shaft in proximity to a second location of the prostate gland based on the one or more images while the shaft is still inserted into the rectum of the patient and wherein the shaft is also rotated relative to the handle ~~[[based on the one or more images]]~~;

inserting the needle into the prostate gland at the second location by actuating the spring mechanism; and

delivering a second dose of the denervating agent to the prostate gland via the lumen of the needle.

28. (Previously Submitted) The method of claim 27, wherein the imaging apparatus comprises an ultrasonic imaging device.

29. (Previously Submitted) The method of claim 28, further comprising maneuvering the ultrasonic imaging device to generate the one or more images of the prostate gland.

30. (Previously Submitted) The method of claim 27, wherein the imaging apparatus is operably connected to a handle and wherein rotating the shaft further comprises rotating the shaft relative to the handle.

31. (Previously Submitted) The method of claim 27, further comprising:
removing the distal end of the needle from the prostate gland at the second location;
rotating the shaft with respect to the prostate gland to position the distal end of the shaft in proximity to a third location of the prostate gland based on the one or more images;
inserting the needle into the prostate gland at the third location by actuating the spring mechanism; and
delivering a third dose of the denervating agent to the prostate gland via the lumen of the needle.

32. (Previously Submitted) The method of claim 31, further comprising:
removing the distal end of the needle from the prostate gland at the third location;
rotating the shaft with respect to the prostate gland to position the distal end of the shaft in proximity to a fourth location of the prostate gland based on the one or more images;
inserting the needle into the prostate gland at the fourth location by actuating the spring mechanism; and
delivering a fourth dose of the denervating agent to the prostate gland via the lumen of the needle.

33. (Previously Submitted) The method of claim 32, wherein each of the doses comprise approximately 0.5 milliliter of botulinum toxin.

34. (Previously Submitted) The method of claim 27, further comprising delivering the denervating agent from a denervating agent delivery assembly that includes a reservoir to hold the denervating agent and an actuator to cause the denervating agent to flow from the reservoir through the lumen, wherein a hub and a fluid line attaches the needle to the reservoir.

35. (Previously Submitted) The method of claim 27, further comprising delivering the denervating agent from a denervating agent delivery assembly that includes a first reservoir that holds a substantial amount of the denervating agent, a second reservoir to hold a first discrete dose of the denervating agent and an actuator to cause the denervating agent to flow from the second reservoir through the lumen, wherein a hub attaches the needle to the second reservoir and the second reservoir refills with a second discrete dose of the denervating agent from the first reservoir following delivery of the first discrete dose.

36. (Currently Amended) A system for delivering a denervating agent to a prostate gland comprising:

an imaging apparatus sized for insertion into a rectum of a patient to generate one or more images of a prostate gland, the imaging apparatus having a shaft with a longitudinal axis and formed with a hole, a handle ~~[[for holding the shaft]]~~, and a wheel fixed to the shaft and rotatably connected to the handle to ~~[[that]]~~ permit[[s]] rotation of the shaft relative to the handle and about the longitudinal axis while the shaft is inserted into the rectum;

a spring-loaded needle for insertion through the hole of the shaft and into a rectal wall of the patient in proximity to the prostate gland based on the one or more images connected to a first actuator, the needle defining a lumen such that a denervating agent can be delivered to the prostate gland through the lumen, wherein the needle extends out of the shaft.

37. (Cancelled)

38. (Previously Submitted) The system of claim 36, further comprising a denervating agent delivery assembly coupled to the needle to deliver the denervating agent through the lumen.

39. (Previously Submitted) The system of claim 38, wherein the denervating agent delivery assembly includes a reservoir to hold the denervating agent and a second actuator to cause the denervating agent to flow from the reservoir through the lumen.

40. (Previously Submitted) The system of claim 39, wherein the second actuator comprises a plunger.

41. (Previously Submitted) The system of claim 39, wherein the imaging apparatus is operably connected to a handle and wherein rotating the shaft further comprises rotating the shaft relative to the handle.

42. (Previously Submitted) The system of claim 39, wherein the denervating agent delivery assembly includes a first reservoir to hold a substantial amount of the denervating agent, a second reservoir to hold a discrete dose of the denervating agent, and an actuator to cause the denervating agent to flow from the second reservoir through the lumen, wherein the second reservoir refills with another discrete dose of the denervating agent from the first reservoir following actuation of the second actuator.

43. (Previously Submitted) The system of claim 36, wherein the denervating agent delivery assembly includes an actuator, a pump and a reservoir, wherein upon actuation of the actuator the pump causes delivery of the denervating agent from the reservoir through the lumen.

44. (Previously Submitted) The system of claim 36, wherein the denervating agent includes botulinum toxin.

45. (Previously Submitted) The system of claim 36, wherein the imaging apparatus comprises an ultrasonic imaging apparatus.

46.- 47. (Cancelled).